

The Correlation of Attention Deficit Hyperactivity Disorder with DRD4 Gene Polymorphism in Turkey

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ABSTRACT Attention Deficit Hyperactivity Disorder (ADHD) is a disorder with a strong genetic background, and genetic factors are thought to play a crucial role in its aetiology and developmental course. In this study the researchers investigated the correlation of ADHD with the dopamine receptor D4 (DRD4) gene. Fifty patients (6–10 years of age) diagnosed between 1994 and 2001 and followed up 7–14 years until their adolescence and young adulthood (16–25 years of age) were included in the study. Fifty healthy individuals of the same age were included as the control group. DRD4 gene analysis of patients was performed after detailed clinical evaluation. The researchers found that 88% of patients continued to meet the criteria of ADHD in adolescence and young adulthood. The most frequent DRD4 gene alleles among the ADHD and control groups were 4-, 8- and 2-repeat alleles. While the frequency of the 8-repeat allele was higher than reported global estimations, none of the three alleles were found to be significant for ADHD. However, in the presence of the 2-repeat allele for the combined subtype of ADHD diagnosed in childhood, the persistence ratio was found to be statistically significant in adolescence and young adulthood. The DRD4 gene may play a role in the developmental course of ADHD in the Turkish population.